

REMARKS

Claims 1-3, 5-7 and 9-14 are pending in this application. Claims 4 and 8 have been canceled. Claims 1-3, 5-7, and 9-10 and 12 have been amended. Claim 14 has been added. No new matter has been introduced.

Claims 1-9, 11 and 12 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kammerer (U.S. Patent No. 5,562,684). This rejection is respectfully traversed.

The claimed invention relates to a suture passer and a method of securing tissue to bone by using suture. Amended independent claim 1 recites a "suture passer" comprising "a suture passing instrument having a cannulated shaft terminating in sharp tip for piercing tissue" and "a strand of flexible metallic material formed into an elongated loop having a crimped end with an acute bend." The strand is adapted to be received within the cannulated shaft of the suture passing instrument "such that said crimped end extends out of said sharp tip as said strand is advanced through the cannulated shaft of said suture passing instrument."

Amended independent claim 9 recites a "method of securing tissue to bone using a length of suture" by *inter alia* "installing a suture anchor with an attached suture strand in a portion of bone adjacent a section of tissue to be secured," "piercing said tissue with a sharp distal end of a cannulated suture passing instrument" and "deploying a loop formed of flexible metal wire from the distal end of said suture passing instrument." Independent claim 9 also recites "capturing said suture strand with said loop" and "passing said captured suture strand through said tissue by retracting the loop through the tissue."

Kammerer relates to a “surgical knot pusher device” with “a thick-walled cannula or tube having a beveled elliptical face and a central channel for slidably receiving one end of a suture.” (Abstract). According to Kammerer, “[t]he other end of the suture is slidably inserted in one of a pair of longitudinal grooves formed on the outer surface of the cannula which intersect the elliptical face at the opposite ends of its major axis.” (Abstract). Kammerer teaches that, “[a]s the knot pusher device is inserted into a surgical port, a knot formed in the suture is engaged by the beveled face and advanced toward a surgical site.” (Abstract). Kammerer also teaches that a “threading element comprising an elongated rod with a deformable loop is provided to thread the suture into the central channel of the cannula.” (Abstract).

Kammerer fails to anticipate the subject matter of claims 1-9, 11 and 12. Kammerer fails to disclose “a suture passing instrument having a cannulated shaft terminating in sharp tip for piercing tissue,” as recited in amended independent claim 1. Kammerer is directed to a suture knot pusher, not a suture passing instrument. As such, Kammerer is not provided with a sharp tip for piercing tissue. Kammerer’s knot pusher also lacks a “helically shaped end portion,” as recited in new dependent claim 14.

Kammerer also fails to disclose “a strand of flexible metallic material formed into an elongated loop having a crimped end with an acute bend.” Kammerer’s deformable loop 74, which would arguably correspond to the “loop” of the claimed invention, does not have a “crimped end with an acute end,” as recited in amended independent claim 1.

Claims 2-3 and 5-7 depend from independent claim 1, and are distinguishable from Kammerer at least for the same reasons discussed above.

Kammerer also fails to disclose, teach or suggest the sequence of steps recited in independent claim 9. As mentioned above, Kammerer is silent about "piercing said tissue with a sharp distal end of a cannulated suture passing instrument," much less about "deploying a loop formed of flexible metal wire from the sharp distal end of said suture passing instrument," "capturing said suture strand with said loop" and "passing said captured suture strand through said tissue by retracting the loop through the tissue," as recited in amended independent claim 9. Kammerer's suture pusher is not used to pierce through tissue and pass suture. As shown in Figs. 26 and 27 of Kammerer, instrument 130 is used to pierce and pass suture through tissue, but instrument 130 is not cannulated and does not receive an elongated loop. The suture captured by the loop of Kammerer in Fig. 30 is not then passed through the tissue by retracting the loop as recited in claim 9. In Kammerer, the "captured" suture has already been passed through the tissue by instrument 130. All that is needed in Kammerer is for the knot to be advanced by the cannulated instrument. Accordingly, Kammerer does not disclose or suggest the specific steps recited in independent claim 9 which are quoted above. For at least these reasons, Kammerer fails to anticipate the subject matter of method claims 9-13.

Allowance of all pending claims 1-3, 5-7 and 9-14 is respectfully solicited.

Dated: January 3, 2005

Respectfully submitted,

By 

Stephen A. Soffen

Registration No.: 31,063

DICKSTEIN SHAPIRO MORIN &
OSHINSKY LLP

2101 L Street NW

Washington, DC 20037-1526

(202) 785-9700

Attorneys for Applicant